Guidance for Conducting Pesticide Terrestrial Field Dissipation Studies in the United States and Canada

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The harmonization of pesticide regulatory requirements is important for achieving the goal of one North American market for pesticides. This work is being carried out under the auspices of the North American Free Trade Agreement (NAFTA) Technical Working Group (TWG) on Pesticides. One ongoing project involves developing a harmonized protocol for conducting terrestrial field dissipation (TFD) studies on pesticides in the U.S. and Canada, including guidance on the number of field trials. The terrestrial field dissipation study is a basic guideline requirement for registrants of new and existing pesticides and is intended to evaluate the mobility and degradation of pesticide residues under actual use conditions.

In October 1998, OPP and Canada's Pest Management Regulatory Agency (PMRA), in a joint effort, introduced a draft harmonized guidance document for terrestrial field dissipation studies to the US EPA Scientific Advisory Panel for review and comment. The centerpiece of this draft proposal was the conceptual model approach and the use of modules to address significant routes of dissipation as triggered by the results of laboratory environmental fate studies.

This poster describes a case study we presented at a follow-up workshop on terrestrial field dissipation held in July 2002 and co-hosted by OPP and PMRA. The case study, which includes six chemicals (nearly fifty field trials), addresses several of the comments received from the Science Advisory Panel, CropLife America, and CropLife Canada, on the draft guidance document. We examined residue data and other information collected for the dissipation period in terms of completeness, variability, potential use in more quantitative risk assessments, and limitations for such uses. In addition, the case study compares routes of dissipation predicted from laboratory studies with those tracked and identified in the TFD studies to determine whether a given field dissipation study confirms, modifies and/or adds to conclusions drawn from laboratory data on the fate of a pesticide and its degradates in the field.

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